

## Antenna-Coupled TES Bolometer Arrays for CMB Polarimetry

Completed Technology Project (2012 - 2013)



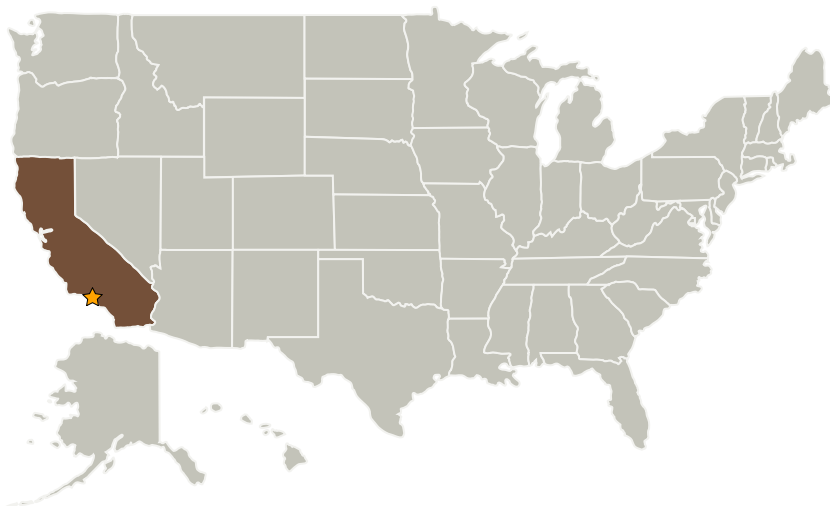
## Project Introduction

Develop and test transition edge sensor (TES) bolometer arrays for precision polarimetry of cosmic microwave background (CMB). Verify that critical antenna performance requirements, especially beam squint and cross-polarization are met.

## Anticipated Benefits

Missions will benefit from development of transition edge sensor (TES) bolometer arrays for precision polarimetry of cosmic microwave background (CMB).

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Jet Propulsion Laboratory (JPL)	Lead Organization	NASA Center	Pasadena, California

## Primary U.S. Work Locations

California



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## Organizational Responsibility

## Responsible Mission Directorate:

Mission Support Directorate (MSD)

## Lead Center / Facility:

Jet Propulsion Laboratory (JPL)

## Responsible Program:

Center Independent Research &amp; Development: JPL IRAD

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## Project Management

**Program Manager:**

Fred Y Hadaegh

**Project Manager:**

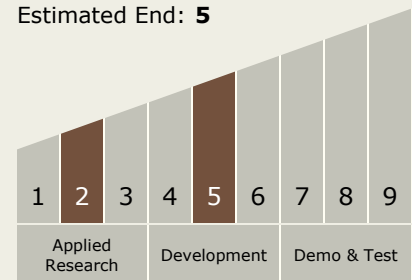
Jonas Zmuidzinas

**Principal Investigator:**

James J Bock

## Technology Maturity (TRL)

Start: **2**  
Estimated End: **5**



## Technology Areas

**Primary:**

- TX08 Sensors and Instruments
  - └ TX08.1 Remote Sensing Instruments/Sensors
    - └ TX08.1.1 Detectors and Focal Planes